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ABSTRACT

The teacher inservice training manual described here focuses on teacher training in sequential development of individualized learning modules for computer-assisted instruction. The intent of the manual is to help the teacher recognize, design, develop, and assess individualized learning materials. This descriptive report provides information on the purposes and content of the manual as well as activities and resources involved. A critique, history of development, and ordering information are also included. (DS)

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DESCRIPTION OF TEACHER IN-SERVICE EDUCATION MATERIALS

A. SUMMARY INFORMATION

Title: AUTHORING INDIVIDUALIZED LEARNING MODULES: A TEACHER TRAINING MANUAL

Publication Date(s): November 1970

Intended Users: Experienced teachers who are interested in individualized learning modules and their use with computers

Grade Level(s): K-12

Number: Groups--more than one group can use if properly scheduled

Primary Focus: Sequential development of individualized learning modules for computer-assisted instruction is highlighted.

School subject(s) and/or in-service topic(s) covered:

The focus is on helping the teacher to recognize, design, develop, and assess individualized learning materials for computer-assisted instruction. The topics covered are "A Model for Individualizing Instruction," "Designing an Individualized Learning Module," and "Analysis and Assessment of Effectiveness."

What participant does in using the materials:

An instructor would teach each of the units dealing with individualizing with a computer. After each lesson the user would complete a set of worksheets (i.e., writing objectives, developing self-instructional packages, etc.) and then a criterion test. To complete the package the user takes an assessment test.

Resources: This 219-page training manual is divided into two books. The first contains the introduction, "A Model for Individualizing Instruction," "Designing an Individualized Learning Module," the first half of "Developing an Individualized Learning Module." The second book includes the last half of the module, an "Analysis and Assessment of Effectiveness," and the appendices. This product is dependent on an instructor. The manuals only provide objectives, possible lesson plans, and worksheets. Some knowledge of computers would be helpful to the user.

Describer critique:

The presentation of the topics is difficult to read because of the poor quality of print. An instructor is necessary. The material requires about 20-30 hours with an instructor.

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(TS) - computer assisted instruction TD

B. IN-DEPTH INFORMATION

Title: AUTHORING INDIVIDUALIZED LEARNING MODULES: A TEACHER TRAINING MANUAL

Publication Date(s): November 1970

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Grade Level(s): K-12

Number: Groups--more than one group can use if properly scheduled

Primary Focus: Sequential development of individualized learning modules for computer-assisted instructionis highlighted.

1.0 PURPOSES:

During the 1970s educators have sought to provide equal educational opportunities for all. Teachers and administrators have recognized the value and desirability of individualized instruction. The purpose of this manual is to assist public schools in filling the gap in teacher preparation and to provide experienced classroom teachers with the skills and knowledge necessary to produce and use individualized learning modules.

It is stated in the foreword that:"unlike many teacher education courses, this training program requires that the participants learn through actual practice. The immediate application of each new technique to the trainee's own lesson segment is recommended. This allows each teacher the satisfaction of designing and producing an instructional sequence he may use in his own classroom. At the same time, it provides the instructor with the opportunity to evaluate the participant's progress through observation of his actual performance."

This manual was written for Project REFLECT (Research into the Feasibility of Learning Employing Computer Technology), which was a three-year pilot program funded under Title III of the Elementary and Secondary Education Act of 1965. The major activity of the project was to "provide the design team members and other interested teachers with the skills and knowledge necessary for producing effective CAI (Computer-Assisted Instruction) materials."

2.0 CONTENT — Scope and Sequencing of Topics:

The four major sections of this program are:

A Model for Individualizing Instruction--"presents a description of individualized instruction and an overview of instructional technology and the training course."

Designing an Individualized Learning Module--"describes each successive step involved in planning and structuring the basic framework for a module and provides the learning activities necessary for the accomplishment of each step."

Developing an Individualized Learning Module--"includes a description of the techniques required to write and revise a self-instructional package and provides learning activities for the acquisition of any necessary skills."

Analysis and Assessment of Effectiveness--"provides a description of the procedures for insuring that the module effectively teaches what it is designed to teach and for comparing the module with other instructional techniques and/or media."

Supplementary materials and information constitutes the final section of this program. Appendices A through D contain the objectives, descriptive materials, learning activities, and procedures employed in Project REFLECT's CAI Author Training Program. These sections supply the learning activities and specific procedures used to develop materials for the IBM 1500 Instructional System. Appendix E supplies the answer key for the criterion items and activities included in the various topics. Sources mentioned throughout the manual are listed in Appendix F, a bibliography.

3.0 ACTIVITIES AND RESOURCES INVOLVED IN USE OF PRODUCT

3.1 Description of main in-service activities:

An instructor would introduce and teach the user about individualizing with computers. The instructor would have to develop each of the unit lessons to correspond with the objectives of the manual. After each lesson the user would have to do a set of worksheets (such as writing objectives, developing self-instructional packages, designing flow charts). The user would then do a criterion test after each unit. To complete the package the user would take an assessment test.

3.2 Help given in use of product:

This 219-page training manual includes all instructions necessary for completing the program.

4.0 EVALUATION OF TEACHER INSERVICE LEARNING

In the introduction the developer suggests that the instructor give the users of this manual a pre- and post-assessment, which must be devised by the instructor.

Most of the modules contain criterion items for each objective stated in that section. An example of one of the activities is "underline that portion of the following objective which defines minimum acceptable performance: The student will fill in on a map the names of each state and of the twenty largest cities in the United States, given a map with the states outlined and the cities designated by a star. The names must be correctly spelled and completed in a single attempt."

5.0 ORDERING INFORMATION

5.1 Resources required/recommended:

An instructor is necessary for this program. This material is actually a manual for an instructor who would teach the inservice course. This manual doesn't give the user an explanation of how to accomplish the objectives of each of the modules or definitions of many of the terms used for computers. This manual is more of an outline or guide and leaves much of the work to the creativity of the instructor. Although it is not stated directly, it would be to the advantage of the user to have some knowledge and access to a computer. The program would probably require 20-30 hours.

5.2 Distributor name/address:

ERIC Document Reproduction Service
Computer Microfilm International Corporation
P. O. Box 190
Arlington, Virginia 22210
703-841-1212

5.3 Components/approximate costs:

Component	Purchase	Rental	No. Req.	Reusable
AUTHORING INDIVIDUALIZED LEARNING MODULES: A Teacher Training Manual (two books)	Microfiche: $0.65 Hardcover: $9.87	No	1	Yes

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6.0 HISTORY OF DEVELOPMENT

6.1 Identification of the developer:

Kenneth A. Walter, Teacher Specialist in Staff Development for the Montgomery County Public Schools, Rockville, Maryland was the developer.

Project REFLECT was a three-year pilot program funded under Title III of the Elementary and Secondary Education Act of 1965. The project was "an effort to develop a system-wide understanding of, familiarity with, and capability for using CAI (Computer-Assisted Instruction) to improve the educational process in a large school system."

6.2 How developed and when:

There were three project schools; Albert Einstein High School, Newport Junior High School, and Pleasant View Elementary School, involved in the Kensington-Wheaton area. A computer system was hooked up in the schools. The nucleus of the project was composed by members of six curriculum design teams who developed and adapted materials for computer use. Each team was composed of three to four supporting teachers and a full-time teacher-specialist. Three successive groups of teachers, as well as participants in a summer workshop, were exposed to a training program utilizing the materials and instructional techniques. Based on suggestions by these teachers, the results of their tests, their performance, and the observations of the project staff members, the course was revised before it was offered to the next group.

6.3 Evidence of effectiveness with users:

It is stated in the foreword: "This manual reflects the knowledge and experience gained through the development, operation, and evaluation of an orientation and training program for authors of computer-assisted instruction materials within the Montgomery County Public Schools CAI Demonstration Project. As of this printing, however, many of the materials included have not been validated."

C. DESCRIBER CRITIQUE

Appropriateness / adaptability / technical quality:

This manual was designed for those experienced teachers who are interested in development of individualized instruction, using computers. An instructor is a necessity because the manual itself does not provide complete explanations or information about the various topics. It merely outlines what should be learned. Although this manual is for both elementary and secondary grade levels, some of the activities are extremely difficult. For example, one activity requires the user to determine the schematic design of a model methane molecule. Many of the activities would have to be reworked and adapted for the different grade levels and subject areas. The language is difficult to understand because many of the terms are not defined. The material requires about 20-30 hours with an instructor.

Content accuracy/social fairness/community acceptance issues:

The material appears to be accurate. Because there is very little information about the various topics, it would be difficult to accomplish the objectives of each module without extensive research or instructor guidance. The material is essentially free of sex, race, or ethnic bias, although some may be offended by the reference to the user as only "he."

Overall summary/comment:

After reading the introduction, one assumes that this package teaches the user how to develop individualized materials using any type of medium or media (work-sheet, programmed text, slides, audiotape, CAI, etc.) However, it becomes more apparent as one reads that this manual is specifically designed for the use of computer-assisted instruction.

The manual appears to be photocopied. The quality of the print is uneven, varied, and occasionally difficult to read because of the lightness of the print. Some of the staples are placed too close to the text. There are two different page numbers on every sheet.